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"An Eye on Your Economy" highlights the U.S. Census Bureau's data collection activities, for the Manufacturing, Mining, and Construction sectors of our economy. We hope you find the articles and information useful and look forward to suggestions on ways to increase its value in the future.

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Information Service Center

Titanium Dioxide Production and Stocks

by Tim Althouse



What makes the White House white? Titanium Dioxide does. Titanium Dioxide (TiO2) is a versatile product found naturally throughout the world and is the ninth most common element in the Earth's crust. Its main uses are as a whitening agent in paper, plastic, paint, rubber, and ceramics. But it is also found in some unlikely places. Did you know that TiO2 is in your toothpaste? It is also found in some food products. TiO2 is in the white filling of Oreo cookies and in the M on M&M's. TiO2 is used in many industries because of its hiding power, whiteness, gloss potential, durability, and non-toxicity. Because of the wide range of use, TiO2 is in virtually every aspect of our lives. To keep track of the production and stocks of the few companies that produce TiO2 in the US, the Census Bureau produces the monthly survey, M325AT, Titanium Dioxide.

Production of TiO2 has been growing steadily over the years. The year 2000 ended with production at an all time high of 1.54 million short tons. However, due to slow demand by the paint and paper industries, 2001 production levels fell to 1.46 million short tons. The last year that production was at this level was 1998. Stock levels at the end of 2001 were at an

all time high of about 175 thousand tons. Apparent consumption for 2001 was relatively high throughout the year, however this is mainly due to the lower production levels since exports and imports remained steady. The weak economy and softer than usual demand are expected to continue to impact the TiO2 market through the second quarter of 2002. For a global perspective, the US producers have about 34% of the worldwide production capacity of TiO2.

To view monthly data on our web site for Titanium Dioxide Production and Stocks, go to www.census.gov/cir/www/325/m325at.html.

A Look at the Glass Containers Industry

by Theresa Crowley

It is rare today to find a glass soda or milk bottle. This is because many beverage manufacturers have opted to use plastic instead of glass. The expensive, difficult to grip, heavy glass bottle is now replaced with a disposable, lightweight plastic or paper carton.

The use of glass containers has been on a decline since alternative containers were introduced. The glass container industry (NAICS 327213), which once produced containers for items such as toiletries, medicines, dairy products, and many food items, is now primarily responsible for bottling liquor, wine, and

other alcohol products. In the 2000 Annual Survey of Manufactures (ASM), the value of shipments decreased 2 percent to \$4.1 billion from the 1999 value of shipments of \$4.2 billion. The 2000 total employment was 16.8 thousand, a decrease of 12 percent over the 1999 rate of 19.2 thousand.

The plastics bottle industry, (NAICS 326160), has risen steadily in the past years. Plastic containers are now used to contain items such as sodas, pancake syrup, and ketchup. For this industry, the value of shipments from the 2000 ASM was \$8.4 billion. This was 15.5 percent

above the 1999 estimate of \$7.2 billion. Total employment for 2000 was 36.9 thousand, which was constant with the 1999 rate of employment.

For more information about the ASM, visit our web site at: www.census.gov/mcd



Clay and Nonclay Refractories

by John Linehan

A refractory is a material that retains its shape and chemical identity when subjected to high temperatures and is used in applications that require extreme resistance to heat, such as furnace linings. Refractories are classified as clay or nonclay. The clay refractory industry (NAICS 327124) comprises establishments primarily engaged in manufacturing clay refractory, mortar, brick, block, tile, and fabricated clay refractories, such as melting pots. The nonclay refractory industry (NAICS 327125) includes fabricated nonclay refractories, such as graphite, magnesite, silica, or alumina cru-As reported in the 2000 Current Industrial Reports Series MA327C, Refractories, the total manufacturers' shipments of refractories amounted to \$2.0 billion, a decrease of 10 percent, from \$2.2 billion in 1999.

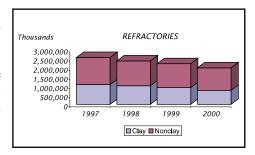
Shipments of clay refractories decreased 16 percent to \$770.5 million in 2000, from \$918.7

million in 1999. Clay refractory shipments accounted for 39 percent of total refractory shipments in 2000 and 41 percent in 1999. Shipments of nonclay refractories decreased 6 percent to \$1.2 billion in 2000, from \$1.3 billion in 1999. Nonclay refractory shipments accounted for 61 percent of the total refractory shipments in 2000 and 59 percent in 1999.

Brick and shapes are the dominant form of refractories. Brick and shapes from clay refractories showed a decrease of 27 percent to \$364.5 million in 2000. Brick and shapes from nonclay refractories showed a decrease of 11 percent to \$631.1 million in 2000.

As noted in the following chart, the production of clay refractories has decreased steadily from 1997. The primary reason for this decrease is the increase in the cost of fuels, especially natural gas. In addition, the steel industry has

reduced its output of steel in recent years. Therefore, reducing their consumption of refractory products.



For more information on Current Industrial Reports, visit our web site at: www.census.gov/mcd

Enhancements to New Housing Characteristics

by Raemeka Gant



Did you know that 17 percent of new houses completed in 2000 had garages for three or more cars? Or, that 41 percent of apartments in the Northeast are over 1,200 square feet? These and other characteristics of new houses are available on the Manufacturing and Construction Division's web site, www.census.gov/mcd. Simply scroll down and click on

"Characteristics of New Housing."The purpose of the new housing characteristics data are to

provide statistics on the characteristics of new privately-owned residential structures in the United States.

In 2001, the Census Bureau discontinued printing the annual publication for the C25, "Characteristics of New Housing." Previously released characteristics were available mid-year from the New Residential Sales web page. New housing characteristics will now be available earlier in the year and on the Internet in Portable Document Format or in an Excel format for a fee.

These characteristics are available at www.census.gov/const/www/charindex.html. The web page setup allows users to select from pull-down menus. Selected characteristics of new housing are also available on a quarterly basis at www.census.gov/const/www/newresconstindex.html.

Some improvements made include the following:

- Historic data are now available from one location versus having to look several places;
- Additional categories of data have been added expanding the availability of certain characteristics;
- Data ranges have been updated to compliment changes in new housing characteristics; and
- More multifamily new housing characteristics are available.

For questions regarding new housing characteristics, visit the web site or email us at MCD_EIRCB@census.gov.

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2000 Manufacturing E-Shipments

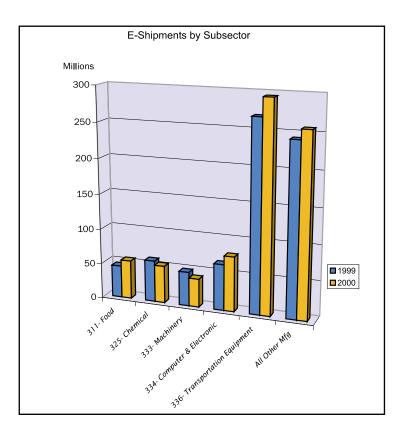
The value of U.S. manufacturing e-commerce shipments (e-shipments) reached \$777 billion in 2000 an increase of 7 percent over revised 1999 e-shipments of billion. E-shipments account for 18.4 percent of the value of all shipments from U.S. manufacturing plants in 2000, about the same as in 1999. This information was collected in the Annual Survey Manufactures (ASM) Computer Network Use Supplement, a separate survey of more than 50,000 ASM manufacturing plants.

Manufacturing e-shipments are concentrated. The five industry groups with the highest shares of e-shipments, shown in the chart, account for 67 percent of all manufacturing e-shipments in 2000, almost identical to 1999. Transportation Equipment is the largest industry group, accounting for 38 percent (\$294 billion) of total manufacturing e-shipments. The large e-shipments

share for Transportation Equipment is consistent with the substantial role that group plays in Manufacturing, where it accounts for 15 percent of total shipments. It also is consistent with the long history of Electronic Data Interchange (EDI) use in this group.

E-shipments are pervasive in manufacturing, accounting for at least 10 percent of shipments in 16 of 21 industry groups. The e-shipments share of total shipments is largest in Transportation Equipment (46 percent), followed by Beverage & Tobacco (38 percent) and Electrical Equipment, Appliances, and Components (24 percent).

For more information on e-business processes of manufacturers and ecommerce sales of retailers, merchant wholesalers, and selected services see E-Stats at: www.census.gov/eos/www/ebus iness614.htm



The New Face of Construction Numbers

by J.P. Hill

As Tolstoy said, "Everyone thinks of changing the world, but no one thinks of changing himself." Well, the C30 series, "Value of Construction Put in Place," seems to be doing both. Although changing the world may be a stretch, there is no doubt that new categories of construction are transforming the C30 series into a more useful data product. Since 1964, we have classified private nonresidential and state and local construction by building or nonbuilding and ownership type. The new categories classify construction by its intended use. With the new categories, we are now able to publish annually 129 types of construction compared to the 36 that we previously published. This is a major improvement of useful designations for those data users dependent on such information for

economic policy and business decisions. The new annual data are currently available for 1993 – 2000 on the Internet at www.census.gov/pub/const/C3 0/newtc.html.

With the changes in classifications, comparisons of data can only be made at the total level. For example, the total nonresidential data are equal to the sum of the previously published total private nonresidential buildings plus "all other private" expenditures shown in the "Value of Construction Put in Place" publication. Although some categories (lodging, office, educational, religious) seem identical to previously published data, there have been minor changes within the classifications that make these values incomparaIn July 2002, this new classification system will also be used to present the monthly "Value of Construction Put in Place" series.

The table below is an example of new detailed types of construction.

Value of Commercial Construction Put in Place, 1997- 2000 (Millions of dollars)

	1997	1998	1999	2000
Commercial	49,273	51,398	54,317	59,050
Automotive	5,736	5,270	5,904	5,930
Food/beverage	8,566	9,118	8,277	8,923
Multi-retail	12,157	13,254	15,234	15,289
Shopping Mall	1,949	2,917	2,873	2,575
Warehouse	12,563	12,698	13,702	14,781

It All Starts Here...



Paul Hsen Assistant Division Chief Research and Methodology

The Research and Methodology staff provides statistical support for the surveys and censuses conducted by the Manufacturing and Construction Division. We ensure that the methods used in the programs are statistically valid and efficient. We work closely with program managers to set and achieve goals for our programs. We ensure that important methodological issues are identified and understood early in the planning process. Our goals cover virtually all aspects of survey and census processes, from initial planning and sample design to tabulation and release of data. One day we may be developing a customized sampling strategy for a manufacturing survey. Another day we may be developing computer programs to compute measures of precision for a complex construction survey.

The following is a sample of what we recently did:

- Provided support to our subject matter staff to publish estimates of value-put-in-place expenditures in far greater detail than before.
- Developed new procedures to adjust for missing data and outliers in our survey of residential improvements and repairs.
- Collaborated with our subject matter staff to derive annual benchmarks for the newly defined NAICS-based industry categories.
- Provided the methodological support for producing the first set of e-commerce estimates for the manufacturing sector.



Part of our work is to do research and analysis to improve our programs. For example, we recently developed alternative ways to model and forecast monthly expenditures for residential improvements. We are currently investigating post-stratification regression techniques to improve the accuracy of the state level estimates for the Industrial Research and Development Survey. We enjoy what we do because we know that our contributions will lead to data products that are more reliable and useful for our data users.

Information Services Center 4700 Silver Hill Road Washington, DC 20233-6900

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WE'RE ON THE WEB! www.census.gov/mcd

Economic Indicator Reports 2nd & 3rd Qtr. Release Dates

* Subscription service for the Current Industrial Reports (CIRs)

Services

* Custom Data Extractions from Economic Census CD-ROMs

New Residential Construction 8:30 a.m.	Houses Sold 10:00 a.m.	M3 (Advanced Report) 8:30 a.m.	M3 (Regular Report) 10:00 a.m.	Value of Construction Put in Place 10:00 a.m.
06/18/02	06/26/02	06/26/02	07/03/02	07/01/02
07/17/02	07/25/02	07/25/02	08/02/02	08/01/02
08/16/02	08/26/02	08/27/02	09/05/02	09/04/02

Programs:

- Economic Census Manufacturing Sector
 - Mining Sector
 - Construction Sector
- **■** Construction Statistics Indicator Programs
- Manufacturers' Shipments, Inventories, and Orders (M3)
- Annual Survey of Manufactures (ASM)
- Current Industrial Reports (CIR)
- Special Study Surveys Pollution Abatement
 - Plant Capacity
 - Research & Development

Phone: 301-457-4673

E-Mail: mcdinfo@census.gov

Fax: 301-457-4632